

Amendments to the Claims:

Please enter the following claim amendments.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Withdrawn) The implantable valve of claim 1, wherein a cross-linking agent provides the attachment of the biomaterial to itself.
3. (Withdrawn). The implantable valve of claim 1, wherein an adhesive provides the attachment of the biomaterial to itself.
- 4.-10. (Cancelled)
11. (Withdrawn) An implantable vascular valve, comprising:
 - a support frame;
 - one or more leaflets comprised of biomaterial attached to the support frame and configured to function as a valve; and
 - wherein the biomaterial is wrapped around the support frame and affixed to itself using an adhesive, thereby securing the one or more leaflets to the support frame.
- 12.-28. (Cancelled)

Please add the following new claims:

29. (New) An expandable implantable prosthesis for a tubular bodily passage, comprising:

a support frame including a plurality of bends and interconnected sides, the support frame having a first configuration for intravascular delivery into the blood vessel and a second configuration for implantation therein, the support frame having a first end and a second end, where the support frame has a first bend and a second bend occurring at each of said first end and second end;

a plurality of valve leaflets attached to the sides of the support frame to form a valve orifice having an interior edge extending in a direction between the first bend and the second bend at the first end, each leaflet comprising a biomaterial, each leaflet extending between a pair of adjacent sides and having a portion folded over each said adjacent side, where a portion adjacent to an edge of the leaflet is attached to itself by heat welding to form an overhang portion along said attachment to each of the first and second bends, each leaflet having an unattached edge to form the edge of said valve orifice; and

a constraining mechanism configured to limit expansion of said implantable prosthesis in said second configuration to limit the radially outward force against wall of said bodily passage such that damage therefrom is reduced, wherein the constraining mechanism is engaged with at least a pair of support frame sides.

30. (New) The implantable prosthesis of claim 29, wherein the constraining mechanism comprises a suture.

31. (New) The implantable prosthesis of claim 30, wherein the pair of support frame sides include a coil turn disposed at an intermediate portion of said support frame sides, where said suture is attached thereto.

32. (New) The implantable prosthesis of claim 30, wherein the suture is engaged with the support frame sides to encircle the support frame.

33. (New) The implantable prosthesis of claim 29, wherein the constraining mechanism comprises a sleeve.

34. (New) The implantable prosthesis of claim 33, wherein the sleeve encircles the support frame and engages with a portion thereof.

35. (New) The implantable prosthesis of claim 34, wherein the sleeve comprises a biomaterial.

36. (New) The implantable prosthesis of claim 34, wherein the sleeve is attached to the support frame by sutures.

37. (New) The implantable prosthesis of claim 34 further comprising at least one barb to anchor said implantable prosthesis to the wall of said bodily passage.

38. (New) An expandable implantable prosthesis for a tubular bodily passage, comprising:

a support frame including a plurality of bends and interconnected sides, the support frame having a first configuration for intravascular delivery into the blood vessel and a second configuration for implantation therein, the support frame having a first end and a second end, where the support frame has a first bend and a second bend occurring at each of said first end and second end;

a plurality of valve leaflets attached to the sides of the support frame to form a valve orifice having an interior edge extending in a direction between the first bend and the second bend at the first end, the valve orifice configured to permit fluid flow in a first direction along the bodily passage, and the leaflets cooperable to engage each other sufficiently to restrict fluid flow in a second direction opposite the first direction; and

each leaflet comprising a biomaterial, each leaflet extending between a pair of adjacent sides and having a portion folded over each said adjacent side, where a portion adjacent to an edge of the leaflet is attached to itself by a series of heat welds positioned therealong to form an overhang portion along said attachment to each of the first and second bends, each leaflet having an unattached edge to form the edge of said valve orifice.

39. (New) The implantable prosthesis of claim 38, further comprising a constraining mechanism configured to limit expansion of said implantable prosthesis in said second configuration to limit the radially outward force against wall of said bodily passage such that damage therefrom is reduced, wherein the constraining mechanism is engaged with at least a pair of support frame sides the biomaterial comprises a remodelable material.

40. (New) The implantable prosthesis of claim 38, wherein the biomaterial comprises remodelable material.

41. (New) The implantable prosthesis of claim 38, wherein the biomaterial is a tissue comprising elastin or an elastin like polypeptide.

42. (New) The implantable prosthesis of claim 38, wherein the overhang portion forms a pocket extending between the wall of said bodily passage and the body of the leaflet at the second end of the support frame, said pocket adapted to capture fluid flow in the second direction.

43. (New) A method of manufacturing an implantable prosthesis for a tubular bodily passage, comprising the steps of:

providing a flexible biomaterial and a support frame including a plurality of bends and interconnected sides to define a closed circumference with an aperture therethrough, the support frame includes a first configuration for intravascular delivery into said bodily passage and a second configuration for implantation therein, the plurality of bends in the first configuration comprising at least a first pair of opposite bends and a second pair of opposite bends;

placing the flexible biomaterial against the support frame such that an overhang portion thereof extends beyond the closed circumference;

folding the overhang portion of the flexible biomaterial over the sides, generally enclosing the sides within the folded overhang portion;

welding a portion of the folded overhang portion to itself by a series of heat welds along the sides and bends to secure the folded overhang portion of the flexible biomaterial to the sides enclosed therein;

forming a slit between one of the first and second pair of opposite bends; and

folding the support frame to the second configuration about a diagonal axis across the aperture of the support frame by bringing the first pair of opposite bends in closer proximity to form a first end of said implantable prosthesis and the second pair of opposite bends in closer proximity to form a second end of said implantable prosthesis.

44. (New) The method of claim 43, wherein at least one pair of adjacent support frame sides includes a coil turn disposed at an intermediate portion thereof, the method further comprising the step of attaching a suture to the

coil turns between the pair of adjacent support frame sides to limit the movement of the adjacent support frame sides away from each other when the support frame is in the second configuration.

45. (New) The method of claim 43, further comprising the step of attaching a sleeve of flexible biomaterial around the support frame in the second configuration, the sleeve having a cross-sectional area sized to fit within said bodily passage.